

## Specifications for 4-axis Motion Control System Enclosure

A self-contained enclosure with the following components and features:

- One Galil DMC-4183 8-axis motion controller
- One Galil D4041 4-axis micro-step drive option
- 48VDC 500W (minimum) Power supply appropriate to operate controller and motor drives
- Fan with filter
- Emergency stop switch
- Enclosure inputs
  - 115VAC input with GFCI protection
  - USB connector for DMC-4183 interface
  - RJ-45 connector for DMC-4183 interface
  - Four limit switch connectors compatible with Parker Daedal part 006-1742-02
  - One 15pin D-Sub connector for Analog Inputs to controller
  - One 44pin high density D-Sub for Digital Input/Output (A-D) to controller
- Enclosure outputs
  - Four motor connectors
  - One electric brake connector for z-axis
  - 16 BNC connections with labels for step and direction pulse output from all 8 axes
    - Step and Direction outputs configured for TTL (0-5V)
- Operational temp from 60 to 90 degrees F

## Specifications for 3-axis Motion Control System

3-axis high-speed gantry-style linear stages with the following components and features:

- 4 linear stages assembled in a 3-axis X, YY, Z configuration with integral cable management
- Each primary axis will be driven with a 2-phase stepper motor operated in open-loop step mode
- Each primary axis will have normally closed PNP forward and reverse limit switches
- X stage
  - Belt driven with assembled velocity equal or greater than 1 meter per second
  - 1550 mm stroke
  - Reinforce profile with IP54 covers
  - Standard single carriage
  - Suitable 2-phase nema 34 stepper with 3:1 gearhead with  $\geq 5$ m cable
- YY stage
  - 2 Belt driven rails connected via a common drive shaft located 1932 mm apart on center
  - 1000 mm stroke
  - Profile rail with strip seal
  - Standard single carriages
  - Suitable 2-phase nema 34 stepper with 10:1 gearhead with  $\geq 3$ m cable
- Z stage
  - Ball Screw (5 mm pitch) driven

- 1550 mm stroke
- Profile rail with IP54 covers
- Standard single carriage
- Suitable 2-phase nema 34 stepper with brake with  $\geq 7\text{m}$  cable

One day on-site support and service.

#### Configuration guidelines

